

WHAT IS CLAIMED IS:

1. A device for treating cardiac valve regurgitation, comprising:
a tube including a lumen there through;
a compression member carried on the tube; and
a sleeve rotatably disposed about the tube and the compression member, the sleeve including a side port formed therein, wherein the side port is alignable with the compression member by relative rotation between the sleeve and the compression member.
2. The device of claim 1 wherein the compression member has a pre-shaped compression configuration that is distendable outwardly through the side port.
3. The device of claim 1 wherein the compression member comprises a spring.
4. The device of claim 1 wherein the compression member comprises at least one material from the group consisting of stainless steel, nitinol, cobalt based alloy, titanium, thermoplastic, thermoset plastic, or a combination thereof.
5. The device of claim 2 wherein, when the compression member distends outwardly through the side port, the compression member is capable of abutment against an interior wall of a blood vessel.
6. The device of claim 5 wherein the abutment of the compression member against an interior wall of a blood vessel applies a compressive force to the cardiac valve.

7. A system for treating cardiac valve regurgitation, the system comprising:

a device for treating in accordance with claim 1;

a delivery catheter; and

a release mechanism to releasably attach the delivery catheter to the treatment device.

8. The system of claim 7 wherein the release mechanism comprises:

a threaded attachment portion at a proximal end of the tube for threaded attachment to a threaded receiver portion disposed at a distal end of the delivery catheter.

9. The system of claim 7 wherein the delivery catheter comprises a driving catheter, the driving catheter including a keyway disposed at a distal end, the keyway being sized and shaped for receiving a proximal end of the compression member when the compression member is in a delivery configuration.

10. A method for treating cardiac valve regurgitation, the method comprising:

providing a treatment device comprising a compression member disposed exteriorly on a tube and a sleeve rotatably disposed about the tube and the compression member;

positioning the treatment device in a blood vessel adjacent a cardiac valve; and

effectuating relative rotation between the sleeve and the compression member to align the compression member with a side port in the sleeve, thus deploying the compression member through the side port and into contact with the blood vessel.

11. The method of claim 10 wherein deploying the compression member deforms the blood vessel and applies a compressive force to the cardiac valve.
12. The method of claim 10 wherein the blood vessel adjacent the cardiac valve is a coronary sinus.
13. The method of claim 10 wherein positioning the treatment device in a blood vessel is executed via a delivery catheter.
14. The method of claim 13 further comprising:
releasing the treatment device from the delivery catheter after the compression member has been deployed.
15. The method of claim 14 wherein releasing the treatment device from the delivery catheter comprises rotating the delivery catheter in relation to the treatment device to unscrew a threaded engagement there between.
16. The method of claim 10 wherein deploying the compression member through the side port transforms the compression member from a delivery configuration to a compression configuration.